EDITORIAL NOTES.

Very little interest is as yet exhibited by the profession in the coming Election of Members of Council. Possibly it is felt more than shown, but we are of those who think that when real interest is taken in a coming event, it is always shown by some articulate expression of views, and generally by some marked difference of opinion.

Are we all so satisfied with the present state of affairs that our silence may be interpreted as acquiescence in the constitution of the Council? Do we all think that the governing body is representative whilst containing teachers and examiners in the proportion of nearly one half? Has the "9th clause" been universally accepted as beneficial to the body corporate, and just to the individual? Is our Library and Museum at Red Lion Square to be neglected year after year and no one ask the Council why? Should our Register continue to contain the names and addresses of men, twenty-five per cent. of whom cannot be found by the postal authorities? Is our Matriculation Examination a real test of knowledge and intelligence? Is it not rather, a thin veil to cover the passing of men who find, after loss of money and time, that they have been admitted to a course of study which they are incapable of mastering, and by which they can never hope to obtain the diploma? Finally—is not our system of professional examinations arranged on a basis more fitted to admit the minimum, than to secure the maximum of professional fitness?

These questions will have to be discussed some day, and the longer they are neglected the more difficult will be the answer.

Few persons, with any knowledge of horses, visit the Metropolis without being impressed by the risk to life and limb caused by horses slipping and falling on the streets. Over and over again the subject has been referred to, but the persons chiefly interested—the horse owners—are only just awakening to the fact that a great deal of it is preventible. A few weeks since Mr. Sangster, M.R.C.V.S., took the initiative in calling a public meeting to consider the matter. Then another meeting was held in which other Veterinarians took a leading part, notably Messrs. Caton, Price, and South. A further developement of the movement was a large public meeting at which some noblemen and gentlemen took part under the presidency of Mr. Burdett Coutts, M.P. A Society is now formed to carry on the work, and its efforts, will be directed to influencing the paving authorities to pay more attention to the necessity of affording better foot-hold for horses. The attention of the Society has also been directed to the fact that existing pavements might be made much safer by keeping them clean and free from such dangers as loose nails, &c. The meeting was unanimous in protesting against the use of asphalte as a paving for horses to travel over. We are a little sceptical as to the immediate benefits that will arise from the Society's endeavours, but we hope they will at least induce some more rational and humane interest to be taken in that animal which every Britisher fancies he understands, but very few even professed horsemen intelligently appreciate. We want a Society limited by no such narrow object as mere security of foot-hold on paved streets. We want a body capable of assisting and protecting the animal in every sphere—a body recognising its importance commercially and nationally. We want the horse acknowledged as a living factor in civilisation and not merely as a beast of burden or an article of luxury.

ARTICLES AND CASES.

CASES OF PARALYSIS.

By Alfred E. Dalby, M.R.C.V.S., Docking.

Case I.—Thoroughbred Chestnut Nag Mare, with third foal at foot. Twenty-four hours after the foal was weaned the mare was suddenly taken with unilateral paralysis, or hemiplegia, of a well-marked character. The mare had been seen by the groom in attendance two hours previous to the attack, and to all appearance was perfectly healthy. On his second visit to feed the animal he observed her blowing, and, upon moving her, noticed her to have a staggering gait. I was requested to see her and found from the symptoms presented to me a true case of above, viz., paralysis of the lateral half of the body, from head to tail, characterised by a pendulous condition of the lip and eyelid, loss of motive power in the fore and hind extremities of the afflicted side. Although presenting these symptoms the mare was able to support herself by leaning against the wall of the box. I fully expected to have to sling her, but delayed doing so as long as possible, Being aware of the rarity of a true case of hemiplegia, I consulted with Mr. Santy, of Norwich, who saw the patient and quite concurred in my diagnosis and the rarity of such a case. I treated the mare by administering at first an aperient, and subsequently nervine tonics with potash salts in the drinking water. The mare had great difficulty of prehension at first, but gradually regained the use of her lips. She recovered, with the exception of lameness in the off fore-leg which resembled shoulder-lameness when trotted. She has since bred.

It is a question whether this paralysis was caused by the anxiety of mare after the foal, or from subsequent feeding, etc. We dared not leave foal with mare when attacked as the presence of it greatly agitated her.

Case II.—The subject of this case was a brown cart horse used for farm purposes, six years old. When at moderate work it fell down suddenly, and was drawn to the side of the road, and my assistance procured. After making a careful examination I could not find anything to cause the total paralysis of the hind quarters, which was easily detectible by the loss of power in the tail, inability to rise, etc. I ordered the horse to be removed to an adjoining field, stimulated the spine and gave full dose of physic, together with a stimulant. The horse fed well, and with the exception of not being able to rise, which he endeavoured to do during the first five or six hours but not afterwards, he evinced but few signs of pain, pulse 55, temperature 102. Treated the horse two days, but finding no improvement had him slaughtered. I made a careful *post mortem* examination, but found no injury to the spine or spinal cord, or other lesion which we might expect from an accident. Kidneys, etc., perfectly healthy, excepting the usual pyrexial appearances, but all the principal veins supplying the hind ex-

tremities were very red in color, softer than usual, and a thin serous fluid had been thrown out in the nerve sheaths.

Case III. — Well-bred chestnut mare, sixteen years old, in foal, was found in a field not able to rise. Had been seen by the Steward two hours before, and to all appearance was alright. On my assistant, Mr. Perkins, arriving upon the scene, he diagnosed it to be a case of partial paraplegia, and endeavoured without success to get the mare up. Stimulated the spine, administered stimulants and had her turned over. I saw her within two hours when she had staggered up, and with care, had been removed to a roomy box; she was feeding, but continually moving her legs, staggering, and showing great uneasiness. we endeavoured to give her a drench but failed, as by getting her into position she nearly fell down. I therefore substituted an aperient ball, stimulated spine, and injected a full dose of liq.-strichnia subcutaneously, which was repeated at night and at intervals, gave potash salts in her drinking water, and put the mare upon a mash diet, etc. On enquiry I found that she had been fed largely on roots, and it is a query whether the paralysis was caused by an excess of these, or by pressure of the gravid uterus. The case improved with treatment, but it is now at a standstill, mare perfectly healthy otherwise. I am waiting the result of her foaling.

Case IV.—My assistant and I were lately called to a cow belonging to a farmer in the neighbourhood, and on examination found the animal perfectly paralysed in the hind extremities, otherwise healthy. On questioning the owner, found the cow had staggered about some time and had at last fallen, being unable to rise, similar to a case of parturient paralysis. The cow's time being nearly up for calving, waited the result, stimulated the spine, and gave an aperient. On seeing her next day and finding no improvement, made an examination, and found Os Uteri only partly open, had the cow attended to by turning over 3 or 4 times a day, gave stimulants. On seeing her again found the Os Uteri open sufficiently to deliver, although she had shown no labour pains. On my assistant, Mr. Halford, making an examination, found a false presentation, the head laying back and very low upon the right side. After some difficulty owing to the cow being down, he secured the head and delivered bull-calf alive and perfectly healthy, in fact a very large calf for the size of the cow. From first to last the cow never had a labour pain. Gave a stimulant, etc. Saw her twelve hours after delivery, when she was up feeding, and was informed by attendant she got up three hours after my last visit. This in my opinion was due to pressure of gravid uterus, and not a case of parturient paralysis prior to calving, as shown by the cow rising so soon after delivery of the calf.

The attention of the Royal Society for the Prevention of Cruelty to Animals has been drawn to the alleged cruelty on poor broken-down animals offered for sale at the Islington Cattle Market. The society's agents are always ready to take up any *bona fide* case, but it is to be hoped no attempt will be made to manufacture atrocities.

WHO ARE THE CANDIDATES?

By Quiz.

The Annual Meeting of members of the Royal College of Veterinary Surgeons will be held at 10, Red Lion Square this year on the 6th of May, and in accordance with Bye-law 2 all candidates for election to the Council Board must be proposed at least twenty-one days previous to that date. This brings it to the 15th April, so that practically speaking we are within a month of the date at which the election will take place, and as yet not a single candidate has intimated to the body corporate his desire to be returned or elected to the Council Board. There are five vacancies to be filled up, in place of those whose term of office expires in May, viz., Professor Walley, Messrs. E. C. Dray, P. Taylor, W. Mulvey, and J. S. Carter, also one vacancy caused by the death of Mr. Harpley.

Those five gentlemen are of course eligible for re-election; and it is time the Profession knew which of them desire to be returned. Doubtless Professor Walley will seek re-election, and justly so, so long as examiners sit there, but it is to be hoped that even he will give us his views on political questions affecting the profession, and intimate his desire to retain a seat on the Council.

Our old and valued friend, Mr. E. C. Dray, who for so many years so well and faithfully acted as treasurer, has so often of late expressed his desire to retire that we are desirous of knowing what course he intends to take. He generally took a very conservative view of questions affecting the Profession, but for various reasons we do not at the present time feel disposed to criticise his doings in the Council in the same conservative spirit, and will patiently wait his decision as to whether he desires to be returned.

Mr. P. Taylor has served us fairly well in the past. He is again the nominee of the Lancashire Veterinary Medical Association, and although it is one of the largest and most influential in the country it cannot secure his return to his old seat without—to a certain extent at least—help from outside that Association. This being so it cannot be too humiliating to him to give an account of his stewardship, and inform us whether, if returned, he will support those measures calculated to benefit practitioners.

Mr. W. Mulvey four years ago, when soliciting the votes of members, put forth his views explicitly in a circular, and promised to vote for those measures which he considered would benefit practitioners. Let us compare his deeds with his promises, and let us be as exacting and fair with him as with the other candidates, and we are bound to admit that he has faithfully fulfilled those then made. He is the nominee of the North of England Veterinary Medical Association, but we wait for a repetition of some of his former promises and a further assurance that he will continue to act as a representative of the practitioner.

Mr. J. S. Carter may fairly be said to have been a silent and docile Councillor, if we may judge from reports of meetings, but we hear he does not intend

to seek re-election, therefore further criticism is unnecessary. Whoever his successor may be, it is to be sincerely hoped that he will consult the best interests of members of the profession, and that he will pledge himself to give his careful consideration to all questions of importance which may arise, and determine to act otherwise than as an arm-chair ornament.

The vacancies caused by the retirement of Mr. Carter, and the death of Mr. Harpley, should conduce to encourage fresh blood to come forward, and we think the profession would be well served by electing one of its best friends, the Editor of *The Record*. Whilst waiting for and daily expecting to hear the views and receive promises of the various candidates, it behoves us to weigh well the claims of each, and to give our votes only to those who have acted, and those whom we expect will act, for the benefit of the profession in general; but above all let us watch with a jealous eye any Examiner who may come forward or be proposed, and erase his name from the ballot paper; for the profession cannot prosper until the Council and Examining Boards are separate and distinct, and the dual appointment a thing of the past.

12th March, 1889.

[Whilst thanking our Correspondent for his flattering suggestion we take the opportunity of saying that the Editor considers he is more useful in his present position, and more independent in not being a candidate.]

HEPATIC ABSCESS.

By Professor Fred Smith.

Army Veterinary School, Aldershot.

G. 27, 12th Royal Lancers, Grey Gelding. 14 years old, admitted 28th June, Died 21st July, 1882.

The symptoms presented by this case were most obscure. He was admitted off feed and remained so for a day or two; being an old horse and a good one I considered it not unlikely he might have been over-worked, and gave him rest accordingly. He again came in, and the only symptoms were great dullness, loathing of food, rapid falling away in condition, pulse and temperature normal, conjunctiva slightly jaundiced. The prognosis was unfavourable on account of the rapid loss of flesh and general dullness. An aloetic purge was exhibited, and in a few days he was much better, fed, and was more lively. *He constantly stood with the off fore leg in advance of his body;* in spite of feeding he still continued to lose flesh, and I diagnosed the case as being one of melanotic tumors in connection with the liver. He was now off feed again, the excretions and secretions natural. On the morning of the 21st he was found down and unable to rise, the pulse was nearly imperceptible, breathing perfectly normal, eye partly closed, lying perfectly quiet in a semi-comatose condition; he rapidly became worse, muscular tremors supevened, and he died quietly at 3 p.m.

Autopsy.—On opening the abdomen a large clot of blood was found beneath the peritoneum of the head of the cœcum, and was adherent to the muscular wall; this was probably the result of his fall, as he was found on the off side, and the clot was quite fresh; the intestines and stomach were healthy, the latter contained a few Spiroptera and Bots. The spleen was small, the liver was enlarged—not in circumference, but as is generally the case, in *thickness*; it was filled with calcareous deposits, was chirrosed and cut gritty; the bile-ducts were greatly enlarged and thickened, and in the right lobe close to the portal vein were several abscesses,—one larger than the others containing about ℥v. of fluid pus; in the smaller abscesses the pus was mostly inspissated; the pyogenic membrane was of a dull pinkish colour and thickened. The liver cells had undergone fatty degeneration and were filled with bile pigment.

Remarks.—Non-pyæmic abscess of the liver is rare in the horse. I have only met with three cases. So far as I can see there are no diagnostic symptoms shown, and though I diagnosed one of the three cases during life, yet, it is quite obvious that it was only a fortunate guess. The cause of this condition is most obscure, and though all my cases occurred in the tropics, yet, it is quite clear from its rarity, that abscess of the liver in the horse is not due to some of the factors which produce it in man.

Observe the persistent pointing of the off fore leg.

SOME DISEASES COMMUNICABLE FROM ANIMALS TO MAN.*

By Professor Pemberthy.

Some months ago, your President did me the honour of inviting me to introduce a subject for discussion at this, or a previous meeting. I then mentioned "Some laws pertaining to the heredity of disease." It must be obvious that in the meantime circumstances have transpired to attract special attention to this matter, and to cause an alteration in our intentions. Your President and Secretary then kindly named "Diseases communicable from the lower animals to man" as one which would be acceptable, and notwithstanding the fact that it had occupied so much of our thought of late it affords me much pleasure to be allowed to initiate another discussion on it.

To discuss the whole subject in detail in the time at our disposal we do not presume, but I think its paramount importance to us as a profession, and to the community at large, furnishes an excuse for the devotion of a little more of our attention to its consideration. I may say at the outset that I am fully conscious of rendering myself liable to an accusation of temerity for undertaking the task, and ask your forbearance with incompleteness which must necessarily exist. To enter fully into the subject would entail the traverse of the whole region of comparative pathology. This brings us face to face with our subject, and our most important functions, as conservators of human life and health, and of the means wherewith these unspeakable benefits

* Read before the recent meeting of The Midland Counties' Veterinary Medical Association.

may be rendered available to the individual, and to humanity at large. In proportion to the appreciation of our power to achieve in this direction must be our individual and collective professional credit, and those rewards which should accrue to the loftiest aims of which man is capable. We shall not be detracting from the importance of other branches of our work if we say that from our efforts in this direction we must especially anticipate the recognition of our true professional and social position.

In my humble opinion we as a profession have been prone to regard disease and medicine in too restricted and limited a sense. We are too accustomed to imagine a possible division into classes named human and veterinary. Though there may be one flesh of beasts, and another of birds, and another of fishes, there is to my mind *but one* '*pathology*,' one set of principles of medicine and surgery. The practice of these principles is certainly and properly divided, and rightly occupy the attention of two professions, only in details of practice separate. The recognition of the universal application of the principles of pathology is calculated not only to simplify our studies, but to extend our usefulness and influence for good.

As the light of experimental research is being shed on the cause of disease, our ideas as to its after expression are becoming more defined and our methods of dealing with these more intelligible, and easy, and effectual. It is interesting to remark what truth underlies the ancient axiom, "Remove the cause and the effect will follow;" and the advance of our knowledge in the direction of understanding "the cause."

When it is possible, and happily every year seems to increase the possibilities, the contagious disease must be studied with the natural history of its producing factor, and the power of this to induce morbid phenomena; as well as the facilities or resistance offered by the tissues of the organism to which it has gained access.

Modern investigation of the subject and our ordinary views of the principles of life and matter render it almost impossible for the trained mind to conceive of a disease being contagious in the usual sense unless its producing factor be a living entity, or immediately associated with it. Its power of multiplication almost forces the conclusion. It is true that the exact nature of all diseases has not yet been satisfactorily demonstrated, but we must for a moment reflect, and consider what our positive knowledge on the subject was a quarter of a century since, and what absolutely fresh views we are now compelled to take. At no period of the world's history could it be said that science afforded no fresh fields. Our present position leads us to regard the theory of spontaneous generation of contagious disease as a most pernicious doctrine—one at discord with our evidence of natural law and order.

In those easily demonstrable conditions known as infective granulomata—Glanders, Tubercule Actinomycosis, &c., the relation of the cause to the local effect is perfectly clear. In other diseases, as Anthrax, &c., the mode of action may be sometimes different and not so easy of demonstration, but the association with the virus is quite as convincing.

To-day I ask your indulgence while I refer to some of what I regard as the more interesting points specially in connection with the *materies morbi*—the cause of those diseases in question, and to enlarge on those phases of its natural history which suggest special means of prevention or cure. We do not touch on conditions of which our special patients may be the mechanical means of conveyance from the diseased to the healthy.

It is natural that in contemplating this matter the question should arise why a virus should not exert the same influence in one animal or species as in another? Obviously the reply must be of a hypothetical character. The suitable soil, and surrounding conditions, the selective affinity manifested throughout the vegetable and animal kingdoms, all lead us up to general laws. It has been suggested that in the insusceptible animal there is either deficiency of an essential, or a something additional which is antidotal or antagonistic. From the fact that bacilli which induce a certain disease will grow in broth made from tissues of an insusceptible animal and then induce the disease in a susceptible animal we are led to the inference that there is something of a vital nature in the insusceptible animal to account for the resistance. The general behaviour of white corpuscles towards bacteria has caused them to be regarded as in someway connected with this immunity: If watched in living tissues they are seen to be the natural warriors against such particulate matter.

Other circumstances may obtain and assist in the protective powers. Pasteur states that though fowls do not under ordinary circumstances contract anthrax, if they be immersed in cold water so as to reduce the temperature to the mammalian standard they become affected and die.

Though from time immemorial it has been the custom to regard some diseases of animals as transmissible to man, little but vague speculation was associated with it until recent years. The disposition at the present day is to add to the list of such conditions. I fear sometimes enthusiasts are carried beyond the region of *observed* facts and discretion. Precipitation and generalities are to be as far as possible avoided, but we must not forget that it is even safer to err on this than on the other side, though I cannot refrain from saying that on our own part the greatest caution should be used in making statements or receiving them. The capacity for being duped in this direction is not small. I think that until a matter as to intercommunicability is safely and soundly established it should be discussed only amongst professional or scientific men, for first impressions are not readily erased from the lay mind. This state of caution need not deter us from using every means at our disposal for the discovery or substantiation of such conditions as may possibly exist. During the existence of epizootics and epidemics it is our duty to watch for evidence of connection, and of course it is most desirable that the practitioners of both branches of medicine should be in accord.

In these considerations we must not forget that the contagious and intercommunicable disease does not always manifest itself in the same way in all susceptible species. The rabies poison may induce paralysis in rabbits, hydrophobia in man; splenic apoplexy, malignant pustule in man; malignant small-pox of man, a benign condition in the cow.

The more important and practical points demanding our attention appear to me to be—the recognition of the disease in its earliest phases, the manner in which it may be propagated or disseminated whether by mediate or immediate contagion, the period during which an affected animal may be capable of spreading the disease, and the length of time during which the virus outside of the body retains the power of exciting the disease; as well as any circumstances which modify any of these conditions.

Speaking of these diseases separately *Anthrax* (Charbon) is perhaps the best understood of those with which we propose to deal. Its cause is inseparable from the organism known as the bacillus anthracis. This bacillus itself very delicate and easily destroyed, rapidly multiplies, under favourable conditions forming spores which are much more tenacious of life. These spores resist the action of heat and cold, comparatively strong disinfectants, and live for long periods outside the body; putrefaction having little effect on them. For the development of spores and bacilli free access of air is essential, but while putrefaction destroys the bacilli the spores remain without oxygen alive though dormant.

In an affected animal Bacilli may exist only in very small numbers within a short time prior to death: *in articulo mortis* and after, with access of air they develope rapidly. They are most generally met with in the blood but the discharge from eyes, nostrils, &c., also usually contains them.

In great Britain anthrax is most frequently recognised in the ox in the form known as Splenic Apoplexy or Fever; other ruminants (sheep, &c.) the horse, ass, pig, rabbit, and least in carnivora are all affected. It is very, though not absolutely, fatal. Its attack is sudden, period of incubation very short, (from twenty-four hours to three days) and its after course in fatal cases rarely protracted beyond two days.

A heightened temperature is the earliest sign, but *post-mortem* examination is what we usually have first to deal with. The discovery of the bacillus anthracis is necessary before we can positively state (of any condition) that it is anthrax.

There is ample evidence of its being communicable to man, on whom it manifests itself in three forms, which seem to have distinctive features, important for us to remember.

Malignant pustule or Charbon, in which bacilli are usually found only in the local lesion. If active treatment is not early adopted the blood stream and other parts contain them in greater or smaller numbers. Excision of the local lesion and cauterization often prevent the spread, and Guy's Hospital reports give forty-eight cases treated, and thirty-nine recovered. Malignant pustule is probably produced by inoculation (and at the seat) with bacilli, and is consequently the form most likely to follow manipulation of carcases or parts of animals recently dead. This is compatible with general experience and laboratory experiment.

Intestinal Anthrax in which the mucous membrane of stomach and intestines manifest the local lesion; the mucous and sub-mucous tissue is largely infiltrated with a gelatine form exudate; softened and enlarged spleen and mesenteric glands. The infection is usually general and the effect usually fatal.

Pulmonary Anthrax, or wool-sorters disease, in which the pharynx is congested, the bronchial mucous tinged with blood and of a musty colour, bronchial glands infiltrated and softened, lungs in varied morbid states, ecchymoses in various parts of the body. This is also a fatal form, but if the patient do not succumb in a few days recovery is usual.

In Intestinal and Pulmonary Anthrax the general infection appears to be associated in the one case with ingestion of spores, in the other with the inhalation of spores. This is supported by the fact that the intestinal form is met with after the consumption of improperly cooked or uncooked flesh from affected animals, and the latter—pulmonary—among workers with certain classes of wool which has been subjected to conditions favourable to the development of spores and their being inhaled: those who open bags of wool imported from countries where anthrax is known to prevail; and those in drying-rooms where spores are likely to be mixed with the atmophere.

It is not, then, peculiar that we meet with malignant pustule in workers with hides, slaughterers, and veterinary surgeons, and that Guy's Hospital, around which are situated our large hide-dressing establishment, should furnish so many instances of it; nor that wool-sorters' disease should have a kind of natural connection with Bradford, though it is by no means confined to that city.

Intestinal anthrax is comparatively little recognized, and indeed during life. independent of the history, most difficult of recognition. I am inclined to think it may be more common than we believe. Cooking of food is of course a potent factor in lessening the risk in the human subject.

With the curative treatment of our patients the recent orders attached to the Contagious Diseases (Animals) Act forbid our dealing. My experience tells me that it is not an absolutely fatal condition. When external Anthrax is localised, excision, cauterization, and the internal administration of such agents as Quinine, perchloride of Mercury, &c., are sometimes attended with recovery.

The preventive measures will be based on our knowledge of the facilities afforded by the animal and vegetable pabulum, the free access of air to the development of spores, their great powers of resistance, and the different means by which they may gain entrance to the body. Though bacilli

soon succumb to conditions of putrefaction, the spores seem to defy ordinary agencies of destruction for unmeasured periods. The channels of distribution are as numerous as mechanical means of conveyance and quite beyond enumeration. Carcases should be disposed of immediately with unbroken hide to prevent the formation of spores, and with due regard to the virulence of the excretions and secretions. Burning, if practicable, would be best. If burying is to be the mode of disposal a spot below the level of the springs and water course should if possible be chosen. If practicable too it is well to bury them where they died. Excretions which have had free access of air should be submitted to the action of fire, or some other powerful disinfectant, $H_2 So_2$ being about the best.

Bleeding cannot of course be too strongly condemned from this and every point of view.

Glanders.—Though for a long period recognised as *the* disease communicable from the horse to man, it has remained for recent research to make the most important additions to its pathology. A very short organism (*bacillus mallei*) about the size of that of tubercle and in some other respects like it, has been discovered, and pure cultivations produce most virulent and characteristic glanders.

It appears beyond doubt that this bacillus is the disease-producing agent. It is more commonly found in young than in old lesions, grows in serum in droplets, and on potato in a characteristic fashion. Experiment tells us too that though we most frequent meet with glanders in the horse and ass, and though more fatal to these, that many other animals are susceptible. We have recently met with cases in lions, cats, dogs, and guinea-pigs. The latter, especially the old, seem to recover in many cases. I am disposed to believe that in other animals than the horse, glanders exists more commonly than we have supposed. When we consider the source of food supply of our domesticated and captured carnivora in large towns this view receives support. Virulent matter inoculated into guinea-pigs in course of three or four days produces *in loco* an ulcer similar to that observed in the schneiderian membrane of the horse. Swelling of the lymphatic glands connected with the lesion, infarctions and characteristic nodules in various parts of the body, particularly lungs, spleen, ovaries, and gut. The smaller the amount of virus injected the greater is the tendency to the chronic forms. The shortest period of inoculation I have been able to register is in the instance of an ass, when after inoculation with a cultivation of the bacillus the temperature was 105 in twenty-four hours, and in three days characteristic changes were going on in the schneiderian membrane.

I am not aware of any direct experiment bearing on the length of time during which the virus of glanders outside the body under ordinary conditions retains its power of producing disease, but some circumstances point to this as being considerable. In the horse probably the commonest mode of infection is through the respiratory membranes, though entrance through abraded surface is not rare. I have seen two cases of infection of the intestines.

In the human subject where the disease is known as Equinia, Malleus, Maliasmus, &c., the entrance of the virus is perhaps most commonly through a wound. In him we find the acute and chronic forms, the former very fatal; Bolinger states that only one out of thirty-eight authenticated cases recovered; of chronic cases seventeen were fatal out of thirty-four. Fagge says that the human subject is not very susceptible, I presume he refers to contraction through the respiratory membrane.

In the acute form papules, soon running into vesicles sometimes as large as a sixpence, form and are connected with farcy like swellings, and ulceration follows; the glands are comparatively rarely affected; nasal discharge may or may not exist.

Inoculation in the ass is usually followed by a short period of incubation and death in from nine to twenty-five days.

Our prophylactic measures cannot be separated from the existence of a living particulate organism which we cannot conceive as arising spontaneously. This is capable of propagating glanders, probably by the normal mucous membranes of the air passages and intestinal canal, and certainly by abraded surfaces. Our chief, though not exclusive concern appears to be with those connected with horses, as stablemen and their families living in and about stables. The ease with which dogs and cats may be affected should always be borne in mind.

The measure instigated by most philanthropic and so far praiseworthy sentiments I cannot allow to pass without remark, I refer to our open water-troughs, which in my opinion are the most common and facile channels of communication of glanders to horses and through them to man. Only yesterday week two cases of glanders with ulceration of the schneiderian membrane and copious nasal discharge were brought for my inspection at our 'gratuitous practice' both of which had drunk at the troughs on their way to the College. These suggest their own remedy.

Rabies and Hydrophobia.—The susceptibility of the human subject to hydrophobia after inoculation of the rabific virus has been long known. The exact nature of the virus has not yet been satisfactorily determined. Rabies is said to manifest itself in two forms—the dumb and ferocious. In all cases it would appear that the brain and spinal cord are more potent in producing the disease; that in those situations the virus is most plentiful or active. It also exists to a lesser degree in the secretions and other parts of the body. Probably after the death of the rabid animal under ordinary circumstances the virus outside the body does not retain its vitality very long. After entering the body of a susceptible animal it manifests its activity at various periods. Its period of incubation is probably very extensive, sometimes it is said four or five years, and we know that symptoms often manifest themselves in ten to fourteen days.

Subdural injection is by far the most certain way of producing it. The time which elapses between the inception of the virus and the manifestation of

the earliest symptoms would seem to be some standard or criterion as to the virulence or mortality of rabies, though this is not a fast rule. The shorter the period of incubation the more rapidly fatal the result.

Rabies virus passed through a series of rabbits gains virulence up to a certain number of transmissions, passed through monkeys its virulence is much lessened and period of incubation increased. Rabies is most often met with in the dog, and next in order in the cat, wolf, horse, deer, ox, sheep, rabbits, &c. In ninety-nine out of one hundred inoculated rabbits paralytic form is to be observed.

In the human subject the symptoms are usually of a paroxysmal character, with dread of water, and inability to swallow, &c.

Men are usually inoculated by being bitten by rabid animals. They are not so susceptible as the dog. We have no record of transference of rabies from man to man. Pasteur has adopted and very largely carried out a practice of protective inoculation by which he believes that he affords extensive protection, and that it is effectual even during some time after the period of incubation. All who have made a careful study of M. Pasteur's work seem to agree up to a certain point with his statement; the matter is however still *sub judice*. If it be found effectual and practical one might suppose that all puppies should be thus protected.

Short of this I think muzzling for, we will say, twelve months, and the perpetual quarantine by muzzling for twelve or eighteen months of all dogs imported into this country. Dr. Drysdale writing in yesterday's *Morning Post* refers to the decrease of rabies during the period of muzzling in London, and its increase since withdrawal of the order.

Tuberculosis, a condition so wide-spread among men and animals is to us a matter of the highest importance, but inasmuch it was lucidly dealt with at your last meeting by our friend Mr. Olver, I will touch but very briefly on it. In one or other of its forms tuberculosis is most often recognised by us in the ox. Statistics indicate that the order of occurrence is as follows:—Man, Milch Cows, Fowls, Rodents, Pigs, Goats, Sheep, Horses, and Carnivora; also that females and that the young are more commonly affected than males and adults.

Heredity, starvation, bad ventilation, prolonged lactation, and other exhausting conditions appear to predispose to the disease; but Koch's fruitful discovery has decided that the active agent is the *bacillus tuberculosis*. This is an extremely small organism about one third diameter of a red blood corpuscle, motionless, slow of growth, persistently retaining stains, and if cultivations of it are introduced to the susceptible animal tuberculosis results. Growth and development appear not to occur except between temperatures of 86 and 105. But this by no means allows of the inference that the bacilli or spores *die* or become incompetent below or above these degrees. Kept at 107 F. for several weeks the virus dies. It is said that bacillus tuberculosis dessicated for months and then moistened and introduced into the animal body has produced tubercle. M. Cornet in *Revue Scientifique* says that by sponging dust from walls of a compartment in which tuberculous patients have been located, and then washing and reproducing in sterilized broth, active tubercle bacilli have been found. He also induced tuberculosis in animals by inoculation with the placenta of tuberculous females and semen from testicles of males. The bacillus is said to have been found in ovaries and spermatazoa, and well marked tuberculosis in a seven months' calf in utero, and tuberculosis seems to be much more easily and rapidly induced by entrances through natural passages than by introducing into the subcutaneous tissue.

There would seem little doubt that the tuberculosis of the lower animal is communicable to the human subject, indeed that these are only manifestations of same virus. Minor points of difference between the bacilli and the lesion perhaps exist but the tissues of various animals may, we think, to some extent modify the result. The bovine bacilli are said to be smaller, finer, more certain of inducing the disease in rabbits, and producing more rapidly general lesions in the guinea-pig. They are also said to be more common in the fresh lesion in the human subject, and in the caseating in the ox. Dr. Crighton would appear to try to show that man is the subject of two distinct forms of disease; one proper to himself, the other proper to bovines, but he has by no means made it clear. Though direct and positive evidence may perhaps be wanting to warrant us in calling the tuberculosis in man and oxen identical, there seems some room for doubt that such is the case. It is obvious that direct experiment, *i.e.*, the inoculation of the human subject is not in present state of our social laws possible. Apparent proof from converse experiment is not wanting, for tuberculosis has been again and again induced in the lower animals by introducing human tubercle bacilli, and much collateral evidence of the intercommunicability exists. Milk is a favourable medium for both development and conveyance of the virus. Dr. Sims Woodhead and others have observed that tuberculosis in young children is most often confined to the mesenteric glands, and that in the lower part of the small intestines the course of invasion could be traced along the line of lymphatics usual to absorption, and when tubercular meningitis has existed, lesions in mesenteric glands and abdomen appear older than others in the body. The bacillus is not evenly distributed through the system of the affected animal, it is probably only found in large numbers in and about the specific lesions. In oxen the lungs and pleura are more commonly affected; in the Pig and Sheep, the glands of neck; Fowls—mouth, nose, spleen, intestines, and liver; Rodents—spleen, liver, and lungs; Horse—glands, spleen, (in form of so-called lymphadenoma); Man—lungs, glands, joints, nervous system. Muscles in all animals rarely affected. The secretions sometimes contain bacilli. When the udder is the subject of tubercle the milk may contain them in greater or lesser numbers. They are not always, indeed but rarely, found in

milk of animals whose udders are not tuberculous. Experiment appears to prove that tuberculosis may result from inhalation. ingestion, and submucous and subcutaneous inoculation, also by injection into the serous cavities.

The power retained by the bacillus after remaining on walls, &c., and communication by inhalation suggest isolation and thorough disinfection.

The existence of bacilli in milk and the ease of destroying them by heat, tell us that boiling milk for a short time, and the thorough cooking of meat are likely to obviate the production by these media.

To legislative and preventive measures there seem to be almost insuperable barriers owing to its general distribution, insidious attack and consequent difficulty of detection in early stages, while the fact of high-priced animals being so generally affected is of great importance in obtaining ways and means. I fear no practical measure can be thorough.

Variola Vaccinia, Cow-pox.—Though Cow-pox in no form may be deemed a fatal disease it is the source of considerable annoyance and loss. Its chief interest however accrues to the part it has played in the measures adopted to prevent small-pox in this country.

Probably the majority of thinkers hold to the view that Cow-pox is identical with Small-pox, simply modified by passage through the cow. Jenner, Ceely, and Simmond's works on this subject are historical. Ceely states that by inoculation with Small-pox matter he produced lesions in the cow identical with those of Cow-pox. When lymph from these was transferred to the human subject vaccinia resulted.

Counter experiments of Chauveau failed to produce vaccinia with human Small-pox lymph—and though other pathologists, notably Dr. Voigt, has given reports of experiments which *prima facie* support Ceely's, we cannot say that we are yet in a position of certainty.

It does however, from experiments and ordinary observation appear beyond doubt that Cow-pox is communicable to the human subject, inducing vaccinia in him, and also protecting him to a smaller or greater degree from severe attacks of Small-pox.

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The first symptom is often slight pain on being milked; then a feeling as of hard patches about the teat—papulation. In course of three or four days these become vesicles, varying in size and shape from that of a pin's head to that of a shilling. The vesicle assumes a peculiar umbilicated form, most of them having a *marked* central depression and indurated edges. In further three or four days they are mature, and usually surrounded by a distinct and almost characteristic areola. This stage at different periods (sometimes determined by the amount of interference with the teats in milking) runs into that of the crust, which is dark brown or even black, occasionally very large by confluence of lesions. Where rough usage in milking has obtained we may find considerable ulcers. Throughout this stage the teat is usually red and swollen. It spreads through a dairy with a regularity that suggests the transference of the contagion by the hand of the milker. The latter phases of the lesion might cause it to be confounded with ordinary chapped teats, but its course will be sufficient to differentiate.

Jenner indicates a White-pock, Blister-pock, or White Visicle, transferable to man by contact, as liable to be mistaken. Ceely and Herny insist on this being merely a slight effusion and raising the epidermis, without central depression or cellular infiltration; of a transient nature and not giving rise to systemic disturbance.

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Though not commonly, men having previously suffered from Small-pox or Vaccinia may contract the disease. One attack secures immunity only for indefinite periods, we should expect this from the frequent taking of the second vaccination in man.

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This description published in June, 1887, is not very conclusive, and up to this date little has been reported which substantiates the position taken by Dr. Klein. Notwithstanding, it will be clear to us that it should have our consideration when dealing with disease of cows' teats.

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Actinomycosis has been found affecting mucous membranes of mouth and alimentary tract which was considerably ulcerated. The condition known as tubercular stomalitis is probably associated with it. Another very important location is the lungs, here the fungus produces a lesion which is quite likely to convey to the casual observer the idea of tuberculosis. The lesion is about the same size and in the same situation. It is however more often purulent, and if the pus be squeezed out, small firm grease like masses may be distinguished in it, and if these be examined microscopically the fungus may be found. Actinomycosis has also been recognised as a disease of the human subject. It is in him more often associated with extensive suppuration. The fungus has been found in abscesses in the pharynx, peritoneum, stomach, intestines, liver, pleura, lungs, jaw, &c. The inference is that it may gain entrance by inoculation, ingestion, and inhalation.

Between the fungus found in the human and bovine lesion there has been supposed to exist some structural difference, but the disparity seems to decrease as our means of research develop, until now I think I may say that any divergence may be accounted for by variety of soil.

Quite recently Professor Crookshank, who has done admirable work in this direction, has, with the actinomyces from a human patient infected a calf, and demonstrated in the calf actinomyces almost indistinguishable from that of which it is the host by natural selection. I am indebted to him for two slides now before you. These are the most reasonable grounds for the belief in the communicabilty of actinomycosis—a disease whose importance from an economic point of view is considerable to man in whom the disease is most serious.

The fungus does not appear capable of resisting the action of powerful disinfectants, and when near the surface of organs these agents are often effectual in destroying it and arresting the disease. When practical of course excision should be resorted to.

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Evidence of transmission to man is of a general rather than of a special character. It is said to induce in him by direct contact a mild eruptive disease of a vesicular character affecting lips and tongue, and fingers. In a somewhat extensive experience I have not been able to witness a case. The situation of course invites us to be on the watch, and hope we may have the result of your experience in the matter.

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connection which may exist between it and conditions of the lower animals will be much enhanced.

There are several parasitic diseases of the lower animals communicable to man, but time forbids even mention of them.

The reader drew attention to the necessity for the scientific inspection and control of abattoirs, mixed sanitary boards, and the study and discussion of matters pertaining to the communicability by both branches of the medical practitioners.

GOVERNMENT VETY. DEPARTMENT.

CONTAGIOUS DISEASES IN ANIMALS.

Reported in Great Britain and Ireland during the week ended March 2nd, 1889.

Pleuro-pneumonia.—There were 9 fresh outbreaks of this disease in Great Britain during the week, 6 of them were in England in the counties of Cumberland, Kent, Norfolk, Oxford, and York (W.R.); the 3 in Scotland occurred in the counties of Edinburgh and Perth. The number of cattle attacked was 47, of which 28 were in England and 17 in Scotland. In addition to these, 152 healthy cattle which had been exposed to infection, were slaughtered.

In Ireland 6 outbreaks were reported in the Unions of North Dublin, South Dublin, and Rathdown. There were 6 cattle attacked, 2 of which died, the other 4 were killed; and 61 healthy cattle in contact were slaughtered in the South Dublin Union.

Anthrax.—Only 1 fresh outbreak of this disease was reported in the week. It occurred in Kent where 4 animals were attacked, 1 of which was killed and 3 died. In Aberdeenshire 2 more cases were reported on a farm where the disease appeared the previous week. No cases of Anthrax were reported in Ireland during the week.

Swine-Fever.—There were 59 outbreaks of this disease reported, 57 in England and 2 in Wales; 324 swine were attacked; 142 diseased swine were killed, 172 died, 49 recovered, and 404 were left alive at the end of the week. In Ireland 5 outbreaks of swine-fever were reported in the counties of Limerick, Carlow, Kilkenny, and Wicklow.

Glanders and Farcy.—Of 12 outbreaks of glanders reported, 11 were in the Metropolis, and 1 in Middlesex; and of 19 horses attacked, 17 were in the Metropolis, 1 in Middlesex, and 1 in Lanarkshire. In Ireland 1 outbreak of glanders was reported in Donegal.

There were 8 outbreaks of farcy reported, 7 in the Metropolis, and 1 in Essex; of the 19 horses attacked, 18 were in the Metropolis.

Rabies.—In England no less than 10 cases of rabies occurred in the week, 4 of them in dogs, in Derby, Kent, and Lancaster; the other 6 were sheep, in York (W.R.). These sheep were bitten on the 4th February, and first showed symptoms of the disease on the 23rd, 19 days after the infliction of the bites. In Ireland 6 cases of rabies were reported, 5 in dogs, in Antrim, Armagh, Down, Londonderry, and Limerick; 1 pig died from this disease in Cork.

EXTRACTS.

REPORTS ON AFRICAN HORSE SICKNESS.

In 1886 Dr. Fleming obtained authority from the Secretary of State for War to send out to Africa an experienced veterinary surgeon to investigate the nature, causation, and prevention of the fatal disease known as "horse sickness" in South Africa. The importance of the subject may be estimated from the fact that in 1887 very nearly one-third, and in 1888 upwards of one-tenth, of the horses and mules of the military force employed in Natal were cut off by this epizootic. Mr. Nunn, the officer selected for this special service, has returned to England, after having studied the disease for two seasons, and his reports are now published. with some introductory remarks by Dr. Fleming. It has hitherto been supposed that this very fatal disease was of the nature of anthrax, and it was hoped that, if this proved to be the case, "Pasteur's" method of protecting animals against it by inoculation with cultivated virus might be made available in preserving those of the Army, as well as those belonging to the colonists, from a pestilence which is not only serious from a military point of view, but constitutes a positive drawback to colonisation, sometimes sweeping off, as it does, nearly all the horses and mules over wide districts during the season when it prevails." We regret to say that Mr. Nunn's experiments have shown that the disease is not anthrax, and that, so far as has yet been tried, it has not been found possible to isolate the bacillus and adopt the Pasteur system of inoculation. But the report brings out some very interesting points connected with the disease, and directs attention to the important question of prevention by hygienic measures.

The horse-sickness prevails towards the end of the African summer and in the autumn. In 1887 the first case among the army animals occurred on Jan. 18th, and the last on June 21st; in 1888, the first case in Natal was on Feb. 13th, and the last on June 1st in Zululand. It appears to be confined to horses, mules, and asses, and, it is said, zebras and quaggas have been found dead, apparently from this disease. But in no instance has it been found to affect ruminant animals, and carnivorous animals which eat the flesh of horses that have died of it do

so with impunity. It is not communicable from one animal to another, and cannot be reproduced by direct inoculation; nor has it in any instance been transmitted to man, though the farriers, while making post-mortem examinations, must have had scratches and cuts on their arms and hands. It prevails chiefly in low-lying malarious districts, rarely occurring in elevated localities, and horses in stables are not so liable to it as those kept in the open. Mr. Nunn believes the disease to be of a malarial character. Dr. Fleming says: "That it is also due to a specific germ there can be little doubt; and that this germ requires two conditions in which to develop its activity—the warmth of summer and the moisture to be found in low-lying situations—is also evident, as then it becomes active; whereas in cold weather it is in a latent or resting condition, and in dry situations it does not find a suitable home. It might even be said that it demands a third condition to favour its development—rank herbage, or vegetation of a certain kind, which facilitates the growth of grass." One attack of the disease does not seem, as in the case of anthrax, to secure immunity from its recurrence. Mr. Nunn notices a very remarkable circumstance in connexion with this disease. It was formerly as prevalent in the Cape Colony as it now is in Natal, but for the last thirty years it has been confined to a few sporadic cases. This change is attributed to "the introduction of sheep, which have eaten up the bush and so altered the vegetation that the germs of horse-sickness have disappeared."

Mr. Nunn is entitled to great credit for the careful and intelligent manner in which he has conducted this important inquiry. Although he has not succeeded in solving the very difficult question he was selected to investigate, he has done good service in clearing the way for further investigation, and has collected information which should prove useful in securing in the meantime the adoption of prophylactic measures which may tend to diminish materially the destructive influence of this scourge. We regret to observe that in the tables appended to his report Mr. Nunn has omitted to state the strength of horses and mules of the different corps and at the various stations. In estimating the loss caused by the disease, we have been obliged to take the strength on Jan. 1st in each year as stated in the Adjutant-General's annual returns. We trust that in any future inquiry this information may be given.

The treatment of the disease has been markedly unsuccessful. Almost every drug has been tried, but from none has any appreciable benefit been derived. In 1887 the deaths amounted to 79 per cent, of the cases, and in 1888 all that were reported terminated fatally. The means of prevention now available appear to be—the removal, if practicable, of the horses to the high grounds during the months in which the disease is found to prevail, and, when this cannot be carried out, the stabling of the animals in suitable buildings, in which attention has been paid to hygienic conditions; care in housing them before sunset, and till well after sunrise; and special attention to the nature and quality of the food and bedding at such seasons.

NOTES AND NEWS.

Lancashire Veterinary Medical Association.

The usual quarterly meeting will be held at the Blackfriars Hotel, Manchester, on Wednesday, March 27th, when Mr. J. B. Wolstenholme will read a paper on "Parturient Apoplexy in the cow: is it analogous to Parturient Fever in the human female?" The members of the Manchester Pathological Society will take part in the discussion.

Tea at 5, business at 6 prompt.

ARTHUR LEATHER, *Hon. Sec.*

The safety of Horses.

A public meeting was held on Tuesday last at the Memorial Hall, Faringdon Street, London, to promote a movement which was recently set on foot to improve the condition of the streets in the interests of the horses.—The Chairman (Mr. Burdett Coutts, M.P.) referred to some letters he had received from Mr. W. Gilbey, Lord Aberdare, Lord Addington, and Captain Shaw, all of whom expressed their sympathy with the object of the promoters. In opening the proceedings the chairman said it was a pity that statistics could not be obtained showing the actual money-loss sustained by the owners of horses through the state of those pavements which had been introduced during the last six years. Against the statement should be placed the statistics for the previous six years, and he felt certain that their case would then be proved up to the hilt. No statistics, however, were necessary to convince them that the present state of the pavement was eminently unsatisfactory, and involved cruelty to horses and serious loss to their owners. (Hear, hear.)—Lieut.-Colonel Colville, in moving the first resolution, referred to some remedies which would help to reduce the loss of life and injury to limb caused by the slippery state of the roads. Every driver should be fully qualified and licensed, and nobody should be allowed to open large cases on the pavement and leave the nails in the road. There should be a uniform pavement managed by a central body, and every cart should be provided with a brake acted upon by the foot of the driver. (Hear, hear.)—Mr. J. J. Dawson, as an experienced driver, stated that the wood pavement was the best. (Cheers.)—The Chairman then called upon Lord De Ros to support the resolution, which declared that simple and effectual means should at once be adopted by the Commissioners of Sewers and other local authorities to remedy the present unsatisfactory condition of the streets of London. — This was unanimously adopted,—Another resolution was then passed, formally establishing a society called the Horse Accident Prevention Society. — This was supported, among others, by Dr. Fleming, principal veterinary surgeon to the army, who emphatically condemned the asphalte pavement. Referring to the suggestion made by Lieut.-Colonel Colville, that every cart should have a brake, he pointed out that riding-horses could not be provided with a brak.

CORRESPONDENCE.

LARYNGISMUS PARALYTICUS.

SIR,

Two blacks do not make a white, and the fact that Dr. Fowler confounds Spasmodic Croup with Abductor Paralysis does not justify the error. It seems so self-evident that the object of a scientific terminology is to distinguish things which are different and not to confuse them, as hardly to require argument. Can anything more profitless be imagined than a consultation as to the cause, nature, and treatment of a malady, when under a common name, one consultant might be referring to Muscular spasm, another to Paralysis, and a third, following Dr. Fleming, dealing with Whooping-Cough? In what logical shape would the issue of such joint wisdom take effect upon the *corpus vile*? Would it be in alternations of Strychine and Faradisation with Anti-spasmodics, or the summary exhibition of a compound extract of contradictions? It is the mark of ignorant or rudimentary medicine to call symptoms diseases, and as pathology develops and it is seen that one symptom may be produced in many ways, a scientific nomenclature embodying these distinctions becomes necessary, and if the old term is retained it has to be arbitrarily restricted to one set of conditions. The word "roaring" is a good illustration, bred in ignorance and indiscriminately applied, custom now restricts it to stertor caused by muscular paralysis. The affections of muscular spasm and paralysis are so distinct that no weight of authority could justify the application of the same term to both—Babel has had its day.

As to the sense in which laryngismus is applied in medical literature there is not the slightest doubt the proof of it is merely a matter of space. Having regard to that, I will only say that the authoritative nomenclature of diseases to which I have referred may, I think, be fairly cited as a final arbiter in such a matter and will probably appear sufficiently conclusive to anyone who reads the preface, and the names of those who are responsible for its accuracy, comprising sixty or seventy of the most eminent medical men in this country, and some distinguished foreigners. If further evidence is required, a few hours spent in a good library looking up the word laryngismus in contemporary medical literature ought to suffice to establish the point that if it means anything, it means *spasm*—and not paralysis—of the glottis.

The meaning of the term "Constructive Criticism" is nor quite clear, but with your correspondent's concluding remarks I entirely concur, and am glad to see the sentiment expressed by a military veterinary surgeon. As however, it seems to imply that I am one of those who only attack the labours of others, I should like to remind him that the first line I ever wrote in a veterinary paper was in reply to an attack, both personal and offensive, also from a military veterinary surgeon, and evoked by my having ventured to attempt to "contribute something to the general stock of knowledge."

Then, and since, I have been attacked for trespassing on veterinary privileges by experimenting on animals at all, and in the same breath abused for not having originally communicated with a veterinary paper. This may be "constructive," but I think your correspondent will hardly venture to call it fair criticism.

I need hardly point out how well such an attack becomes a veterinary surgeon editing a veterinary journal who ignoring the subject in his own paper, within a few days of its issue selects the columns of the daily press to communicate a professional subject for the purpose of unprofessional advertisement, but it is a delicate compliment to the intelligence of veterinary surgeons to assume that any number of them believe that the veterinary profession has a vested monopoly in any form of scientific research, or a claim to dictate to anyone outside their profession the subjects he may study, and the publications to which he may contribute, always of course excepting the restrictions attached to professional subjects, viz, those which relate to a man's own profession, and which may presumably be a source of practice and emolument to himself.

I need not discuss Dr. Fleming's last flattering notice of me, as I consider there are limits to the language of personal controversy, and I have no curiosity to learn anything about the "freedom of Billingsgate" of which Dr. Fleming writes, no doubt with authority. Except for its vulgarity I think his style shows some improvement on previous efforts, it is more natural and a little less pompous, and the native fustian certainly fits better than the threadbare *toga* in which he performs his classic parts.

Yours faithfully, R. H. CLARKE.

INJURY TO THE PENIS.

SIR,

A few years ago I had a similar case to that related last week by "Observer," in a valuable draught gelding. The injury occurred during the night, and I was called in early next morning. After making a careful examination I made a probe with a lancet, and found serum to be the cause. I then made several incisions, and with plenty of warm water got it so far as to be able to push it into its proper place, with two stitches through the sheath to keep it there until the evening, when I found we had made a great improvement. I continued the same treatment three times a day, and had him at work in a week, but kept the sheath fast so that he could urinate, for another week. We had no more trouble with him. JAMES SCRYMGEOUR, V.S., Edinburgh

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